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On favorable report of the committees, the following papers were ordered to be published :

**Notice of some remains of HORSES**

BY JOSEPH LEIDY, M. D.

Mr. W. Lorenz loaned me for examination a horse tooth, black in color, and devoid of its outer cementum, from diluvium, occupying a depression about six feet in depth and about twenty feet in breadth, in the Silurian slate, between Rutherford's Station and Highspire, Lebanon Co., Pa. It is stained in texture with iron, mutilated at its lower part, and not petrified. It is a fifth upper molar of an individual which had just attained maturity, and does not differ characteristically from the corresponding tooth of the recent horse at the same age. The inflection of enamel at the bottom of the principal internal valley of the tritulating surface is minute, but this is the case occasionally in the corresponding tooth in the living horse. The size of the tooth also is about that of the ordinary full-sized horse. The measurements, in comparison with a fifth molar contained in a recent horse skull, are as follows :

	Fossil.	Recent.
Length.....	40 lines.	34 lines.
Breadth fore and aft.....	15½ "	15 "
Width, transversely.....	12 "	12 "

The tooth may be viewed as having belonged to an indigenous horse, a contemporary of the Mastodon, but it is equally improbable.

Prof. Whitney has recently submitted to my inspection a fossil horse tooth from Martinez, Contra Costa Co., California, the largest I have ever seen or can recollect of being on record. The formation from which it was derived Prof. Whitney considers to be of pliocene age. The tooth is well preserved, retaining its outer cementum, and is but slightly, if at all, changed in texture. The tooth is a second upper molar, nearly half-worn. The tritulating surface in its arrangement of the enamel presents nothing strikingly different from that of the corresponding tooth of the recent horse. As in this there is an inflection of the enamel at the bottom of the principal internal valley, and in this respect and the less simplicity of folding of the enamel islets of the tritulating surface, differs from *Equus excelsus* of the Niobrara and of California. The tooth probably represents an extinct species, upwards of eighteen hands high. Its measurements are as follows :

Length along the outer median column to the origin of the fangs....	26½ lines.
Breadth of tritulating surface fore and aft.....	16½ "
Thickness independent of cementum .....	15 "
" with cementum.....	16 "

The species represented by the tooth may be distinguished by the name of *Equus pacificus*. I had previously seen fragments of an upper molar and two lower molars, apparently of the same species, from the same locality, submitted to my inspection by Prof. Whitney several years ago.

Coincidentally, Dr. Le Conte has just handed to me a bone indicating the smallest species of horse of which I have any knowledge. The bone, a second ungual phalanx or coronary bone, together with the proximal end of a metacarpal of a ruminant, were obtained by John C. Browne from a well 60 feet deep, at Antelope, Nebraska, 450 miles west of Omaha. The coronary bone in its axis is 9 lines long; the same width at the proximal end, and rather more than a line less at the distal end. From its relation of size with that of the recent horse, the animal to which it belonged was about eight hands high. It is uncertain to what solipedal genus the bone actually belongs, but in the absence of more characteristic materials, it may be viewed as representing a species of *Equus*.